



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/687,613 | 10/20/2003 | Richard Howe | HOWE | 2599 |

7590 08/13/2004
FRANK A. LUKASIK
1250 WEST MARION AVENUE # 142
PUNTA GORDA, FL 33950

EXAMINER

SEMUNEGUS, LULIT

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

3641

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/687,613

Applicant(s)

HOWE, RICHARD

Examiner

Lulit Semunegus

Art Unit

3641

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim1, the phrase "type" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 rejected under 35 U.S.C. 103(a) as being unpatentable over Horev (US 2001/0019090A1). Horev teaches a combination of an aircraft and spraying apparatus for spraying suspensions/solutions having predetermined characteristics independent of the speed of the aircraft carrying out the spraying, said apparatus comprising: a mounting frame being attached to the underside of said aircraft, said frame having a plurality of bearing braces, said bearing braces being reinforced with a

plurality of brackets affixed downwardly from said frame, a propeller shaft (16) mounted through said bearing braces, said propeller shaft having a forward end and an aft end, a full feathering propeller (18) being mounted on said forward end of said propeller shaft, said propeller having a control cable attached thereto (20), said cable extending to the cockpit of said aircraft and being controlled by an operator in said aircraft (fig. 1), a high pressure pump (14) being mounted on said aft end of said propeller shaft, the input side of said pump being connected to a tank (30) mounted in the interior of said aircraft, a spray boom (24) having a forward end and an aft end, said spray boom forward end being attached to said mounting frame, and being pump and connected to the output side of said piston plurality of spray nozzles being attached to said aft end of said spray boom (page 2, paragraph 22-23). Horev teaches a high-pressure pump but does not expressly teach a rotary piston high-pressure pump. At the time of the invention, it would have been obvious to one ordinary skilled in the art to use rotary piston high-pressure pump instead of the high pressure pump (14) of Horev as a matter of design choice since applicant has not disclosed that using rotary piston high pressure pump solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with a high pressure pump or rotary piston high-pressure pump.

In regards to claim 2, Horev teaches high-pressure tubing (27) with nozzles (24).

In regards to claim 3, Horev teaches high pressure nozzle is well known in the art. At the time of the invention, it would have been obvious to one ordinary skilled in the

Art Unit: 3641

art to substitute one known nozzle for another, as such results are no more than the use of conventionally known design available within the art.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Garner (4,034,915) teaches a combination of an aircraft and spraying apparatus for spraying suspensions/solutions having predetermined characteristics independent of the speed of the aircraft carrying out the spraying, said apparatus comprising: a mounting frame (10) being attached to the underside of said aircraft, said frame having a plurality of bearing braces (46,48), said bearing braces being reinforced with a plurality of brackets (20) affixed downwardly from said frame, a propeller shaft (19) mounted through said bearing braces (col. 4, lines 10-22), said propeller shaft having a forward end and an aft end (fig. 1), and a propeller (26) being mounted on said forward end of said propeller shaft.
- Desmet (2,048,847) teaches a mounting frame (4); bearing braces (3,10); propellant shaft (25); propellant (12); control cable (page 2, lines 35-39); tank (page 2, line 16); nozzle (22); and spray boom (page 1, line 23).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lulit Semunegus whose telephone number is (703) 306-5960. The examiner can normally be reached on Mon-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone can be reached on (703) 306-4198. The fax phone

Application/Control Number: 10/687,613

Page 5


Art Unit: 3641

numbers for the organization where this application or proceeding is assigned are (703) 305-7687 for regular communications and (703) 305-7687 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308 - 1113.

.ls

February 7, 2002


Lulit Semunegus
Examiner
Art Unit 3641


JACK KEITH
PRIMARY EXAMINER